DOCUMENT RESUME

ED 102 510 CS 001 628

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TITLE Free Association Norms.
INSTITUTION Connecticut Univ., Storrs. Dept. of Psychology.
PUB DATE [72]
NOTE 11p.

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS *Associative Learning; College Students; Higher Education; Reading Instruction; *Reading Processes; *Reading Research; Reading Skills; *Word Lists
IDENTIFIERS *Free Association

ABSTRACT

As research progresses in the direction of studying more complex materials such as sentences and paragraphs, it becomes increasingly useful to have a pool of associative norms. The stimulus words for the free association norms presented here were chosen because 100 of them were not used before, they are primary associates of words for which norms are available, and 44 of the stimulus words were included as a check on associative relations among rhyming words used in an experiment in related research. Subjects used in this study were introductory psychology students at the University of Connecticut. Table 1 presents the stimulus words in alphabetical order with an identification of the test form on which they appeared, the primary responses to each test, and the percent of free association strength for the primary words. (RB)

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Free Association Norms[1]

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The important effects of associative influences on reading related tasks have been shown by Samuels (1966, 1968) for situations such as reading training, reading speed and memory for recently read material. As our research progresses in the direction of studying more complex materials such as sentences and paragraphs, it becomes increasingly useful to have a substantial pool of associative norms (the lack of which is a perennial problem in work with associative effects). The stimulus words for the free association norms reported here were chosen for three basic reasons. First, according to an atlas of available free association norms (Shapiro and Palermo, 1968), 100 of the present stimuli have not been used before. Thus, norms on that many new words are available to interested investigators. Second, the words were chosen because, according to the Shapiro and Palermo atlas, they are primary (most frequent) associates of words for which norms are available. This should facilitate the search for associative chaining information. Third, 44 of the stimulus words were included as a check on associative relations amongst rhyming words used in an experiment by Bousfield and Wicklund (1969) and related research. Adequate norms were available for only a few of those words. Those words were: Blood, Box, Brief, Bright, Bud, Buzz, Claim, Coal, Cry, Dare, Die, Dream, Eat, Eight, Fluff, Fire, Fox, Fun, Gate, Hair, Her, Hole, Key, Leaf, Liar, Mean, Meet, Name, One, Pie, Queen, Quite, Rocks, Seem, Size, Sky, Slow, Socks, Tea, Though, Tough, Was, Were, Wise.

Two forms of the test with 72 words each were devised, each containing half the rhyming pairs and 50 of the other words. For each form of the test five different random orders of the words were used. There were 15 words on each

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page. Ss were introductory psychology students at the University of Connecticut. The information presented here is based on 218 Ss for form A of the test and 228 Ss for form B. Preliminary scoring of the test booklets eliminated those Ss whose booklets showed (a) last 5 words not completed, (b) sentence-like continuations of 3 or more words, (c) 5 or more responses that were also stimuli on the same page, (d) the same response 5 or more times on a single page, (e) 10 or more responses in a booklet that were illegible, incomplete or omissions; and (f) a sign of the times, excessive obscenity (10 or more).

Standard instructions were used, based on Palermo and Jenkins (1964), which emphasized speed of responding. Table 1 presents the stimulus words[2] in alphabetical order with an identification of the test form on which they appeared (A or B), the primary responses to each, and the percent of Free Association Strength (FAS) for the primaries.[3]

Table 1. Primary responses and degree of associative strength for 144 stimulus words.

Stimulus Word	Test Form	Primary Response	% FAS
Act	B	Play	39.0
Account	A	Bank	23.8
Again	A	Over	20.2
Against	B	For	50.9
Altitude	B	Good	9.2
Apart	A	Together	34.9
Argument	A	Fight	37.2
Ask	A	Question	38.5
Asleep	B	Awake	39.9
Bat	A	Ball	40.8
Became	A	Become	28.9
Begun	A	Start	21.1
Behind	B	In front	13.6
Being	B	Human	14.5
Bell	B	Ring	53.5
Best	A	Worst	45.4
Blood	B	Red	34.0
Board	A	Wood	16.5
Bottle	B	Wine	12.3
Box	B	Square	16.2
Break	A	Fast	7.3
Brief	A	Shorts	49.1
Bright	A	Dull	20.6
Bud	A	Flower	48.6
Buzz	B	Bell	27.2

Stimulus Word	Test Form	Primary Response	% FAS
Canal	B	Water	19.7
Care	B	Love	17.1
Civil	A	War	20.4
Claim	A	Own	10.6
Coal	B	Black	31.6
Colder	A	Warmer	32.6
Commerce	B	Trade	37.7
Common	B	Ordinary	11.0
Control	A	Desk	12.8
Cry	B	Laugh (Tears)	17.1
Dare	B	Devil	10.5
Dead	B	Alive	50.4
Die	A	Live	37.2
Disease	B	Sick	34.6
Dozen	A	Twelve	54.1
Draw	B	Picture	20.6
Dream	B	Sleep	39.5
Ease	B	Hard	18.9
Eat	A	Food	38.1
Eight	B	Nine	60.5
End	A	Beginning	25.7
Fact	A	Fiction	23.9
Feel	B	Touch	40.8
Fire	A	Water	12.8
First	B	Second	46.9
Fluff	A	Marshmallow	19.7
Follow	B	Lead	35.5

Stimulus Word	Test Form	Primary Response	% FAS
Fork	B	Knife	44.3
Fox	A	Sly	13.3
Fun	B	Games	28.9
Gate	A	Fence	28.9
Gay	B	Happy	63.2
Group	A	People	22.9
Hair	A	Long	24.3
Her	A	Him	42.7
Hole	A	Ground	18.3
Honey	B	Bee	35.1
Hurry	B	Fast	31.6
Inside	A	Outside	70.6
Island	B	Water	16.7
Job	B	Work	53.5
Key	A	Lock	43.1
Knew	A	Know	25.2
Language	B	French	14.5
Laugh	A	Cry	43.6
Leaf	B	Tree	53.9
Liar	B	Truth	17.5
Lose	A	Find	43.1
Mean	B	Average	10.5
Mean	B	Average (Cruel)	9.6
Medicine	A	Doctor	31.2
Meet	B	See	8.8
Mercy	B	Pity	7.9
Mine	A	Yours	63.3

Stimulus Word	Test Form	Primary Response	% FAS
Mistake	A	Error	47.2
Mix	B	Stir	20.2
Motor	B	Car	24.1
Movement	A	Motion	12.8
Mud	A	Dirt	24.8
Name	B	Me	14.0
Near	A	Far	74.3
No	A	Yes	54.1
None	A	All	33.0
Nor	A	Neither	58.3
Nothing	A	Something	22.5
Object	A	Thing	33.0
Office	B	Secretary	10.5
One	A	Two	64.7
Party	A	Fun	27.5
Pick	B	Choose	17.5
Pie	A	Apple	39.0
Pocket	B	Book	27.6
Pole	B	North	24.6
Police	A	Cop	14.7
Pound	B	Ounce	32.5
Prison	B	Jail	36.0
Queen	A	King	75.2
Quite	B	Almost	7.9
Result	B	End	20.2
Rocks	A	Stone	33.5
Saint	B	God	8.8

Stimulus Word	Test Form	Primary Response	% FAS
Science	B	Fiction	12.7
Second	B	First	37.7
Secretary	B	Boss	17.5
Seem	A	Appear	34.4
Shirt	A	Pants	14.7
Sick	A	Ill	27.5
Sink	B	Swim	16.7
Size	A	Big	20.6
Sky	B	Blue	58.3
Slow	B	Fast	81.6
Socks	B	Shoe	68.9
Soul	A	Music	11.9
Stock	A	Bond	18.3
Stranger	A	Friend	38.5
Storm	A	Rain	29.4
Swing	B	Tree	11.8
Tea	B	Coffee	40.8
Than	B	Then	16.2
Though	A	Even	13.8
Tomorrow	B	Today	50.4
Tough	B	Rough	20.2
Towards	A	Behind	31.7
Traveler	A	Voyager	8.3
Trial	A	Jury	27.5
Trial	B	Jury	37.3
Two	A	Three	45.0
Usually	B	Always	21.5

Stimulus Word	Test Form	Primary Pesponse	% PAC
View	B	See	23.2
Was	A	Is	51.4
Waste	A	Basket	13.3
Weigh	A	Pounds	27.1
Wider	A	Narrower	28.4
Went	B	Gone	42.5
Were	B	Was	34.2
Wheat	A	Bread	17.4
Wind	B	Blow	31.6
Wise	B	Smart	21.1
Worse	A	Better	46.8

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Footnotes

1. This research was supported by research grant HD-03932 from the National Institute of Child Health and Human Development to the author and Leonard Katz. Appreciation is expressed for the use of the facilities of the University of Connecticut Graduate Center and Computer Center and to Cheryl Green and Betsy Jagoda for assistance in data analysis.

2. Two words were inadvertently repeated as stimuli. One, "mean", was part of a rhyming pair and selected according to the other criteria. It appeared twice on form B. The other, "trial", appeared once on each form.

3. Complete sets of norms will be available shortly from the author.